

# Method for accelerating focused excitation with multiple RF transmit coils

## Abstract of Disclosure

A transmit coil array assembly for use in a magnetic resonance imaging (MRI) system comprises a plurality of radio frequency (RF) coils arranged in a configuration for transmitting in parallel during transmission mode of the MRI system and a plurality of corresponding RF amplifiers each coupled to a corresponding RF coil for driving currents in the RF coils. The currents are controlled for defining and steering an excitation volume within an examined subject. The currents along with the currents in the gradient coils are further controlled to effect accelerated multi-dimensional excitation. A method for magnetic resonance imaging (MRI) with multiple transmit coils comprises the step of exciting a portion of an examined subject with the multiple transmit coils and the step of receiving magnetic resonance (MR) signals from at least one radio frequency (RF) coil for generating images corresponding to the selected portion of the subject.

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